

SPLIT 2-2 SPLIT 2-3

Work Order ID 111990

January-28-14 10:03:58 AM

111990

Page 1

Item ID: D4653-3 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Collar
 Start Date: 28/01/2014 Start Qty: 14.00 *14*
 Required Date: 28/01/2014 Req'd Qty: 14.00 *14*
 Reference: Cust Item ID:
 Customer:

Approvals: Process Plan: JD Date: 140128 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4653	REV A								

100	Cut blanks as per folio	0.00							
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	CUT BLANK AT 3.600"		14-3-11						
105	Hardinge CNC LATHE SMALL	0.00							
105									
Doosan	Memo	0.00							
Doosan Lathe	Machine as per folio FR115								
	FOLIO REV: N/A								
	DWG REV: A								
	Deburr		14-3-11						



Work Order ID 111990

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Page 2

Item ID: D4653-3 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Collar
 Start Date: 28/01/2014 Start Qty: 14.00 *14* Cust Item ID:
 Required Date: 28/01/2014 Req'd Qty: 14.00 *14* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 *1110* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00		14-3-11					D4653-3 1/23/14
120 *1120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00					1		
121 *1121* HandFinish Hand Finishing	Chemical Conversion Coat per QS1005 4.1 Memo	0.00 0.00					1		

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12/03/28

Work Order ID 111990

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Page 3

Item ID: D4653-3 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Collar
 Start Date: 28/01/2014 Start Qty: 14.00 *14*
 Required Date: 28/01/2014 Req'd Qty: 14.00 *14*
 Reference: Cust Item ID:
 Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
123 *123* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00							U 14-03-28
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>BA</u> Memo	0.00 0.00							U 14-03-28
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							U 14-03-28



Picklist Print

January-28-14 10:03:57 AM

Page 1

Work Order ID: 111990

Parent Item: D4653-3

Parent Item Name: Collar

Start Date: 28/01/2014

Required Date: 28/01/2014

Start Qty: 14.00

Required Qty: 14.00

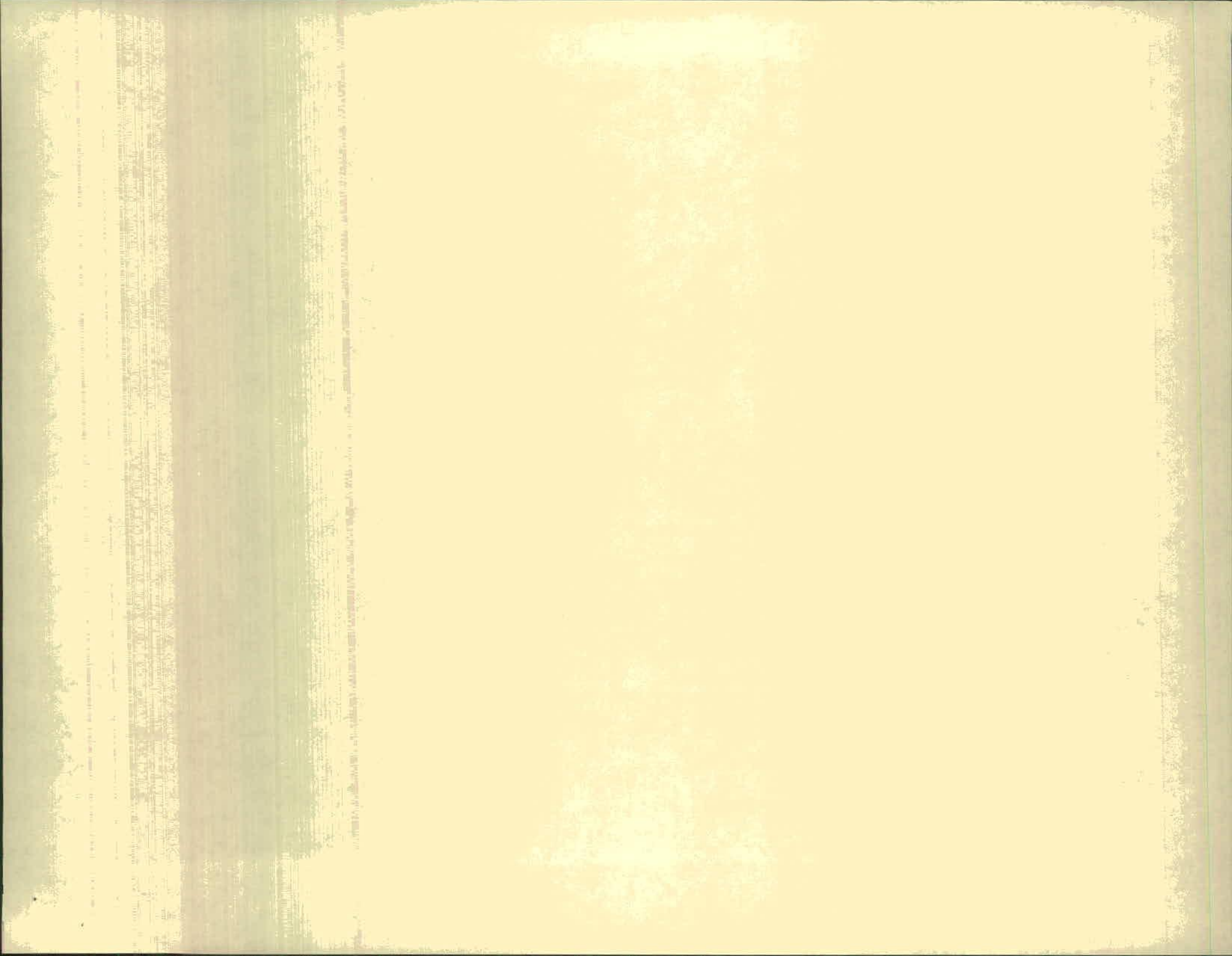
Comments: IPP REV:A NEW ISSUE 12-06-11 JLM VERIFIED BY:DD

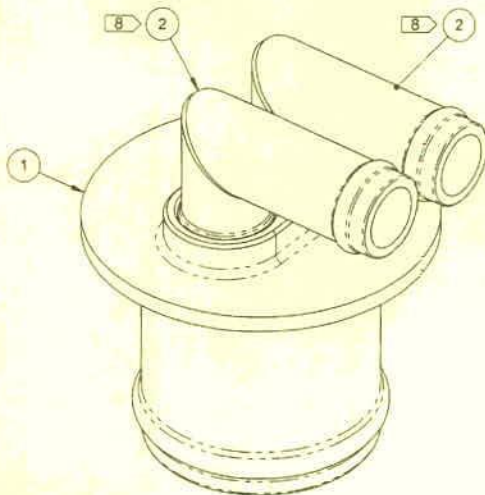
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R3.500 6061 RD bar 3.50		Purchased	No				f	22.0000		4		28-01-3-11	
				<u>Location</u>				<u>Loc Qty</u>					
				MAT005				22					
				124900				10					
				m128054				12					

6061 T6

3.230

14306





D4653-041 VENT MANIFOLD ASSEMBLY

NOTES:

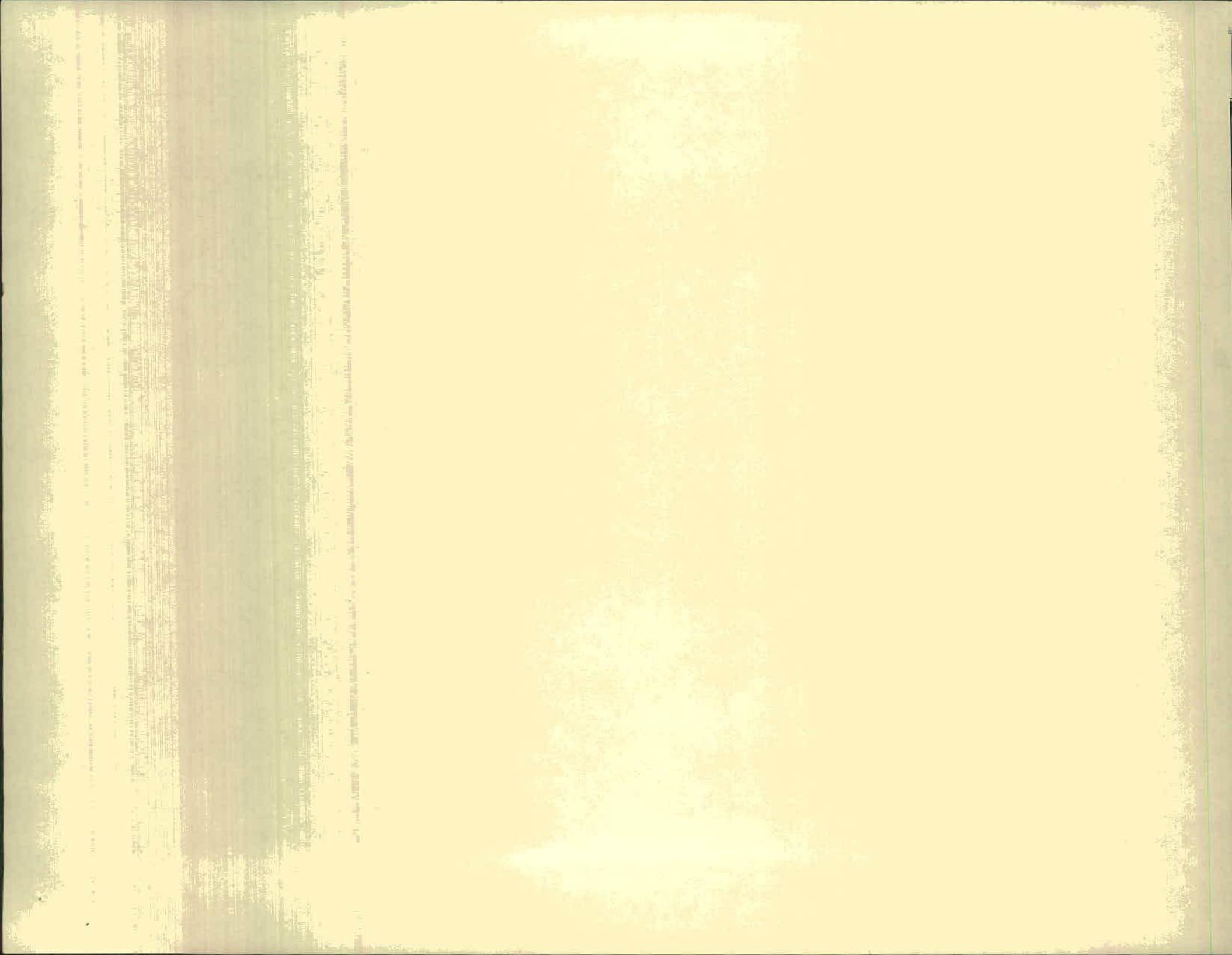
- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 1.35 lbs
- 8) APPLY A LAYER OF MOLYKOTE 55 O-RING GREASE TO O-RING PRIOR TO INSTALLING D4653-045

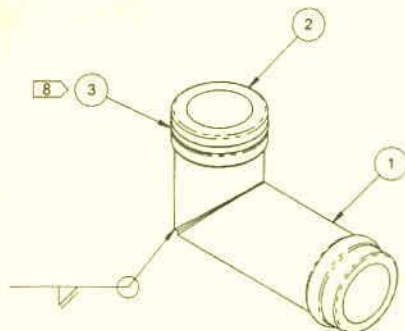
ITEM	QTY -041	P/N	DESCRIPTION
	X	D4653-041	VENT MANIFOLD ASSEMBLY
1	1	D4653-3	COLLAR
2	2	D4653-045	FITTING ASSEMBLY
3	A/R	LUBRICANT	MOLYKOTE 55 O-RING GREASE

111990 MB
14-01-28

RELEASED
2012-11-05
mb

A	NEW ISSUE	MB	12.07.25
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>MB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4653 REV. A SHEET 1 OF 5 TITLE VENT MANIFOLD ASSY SCALE NTS <small>THE DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED UNDER EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DRAWN	<i>MB</i>		
CHECKED	<i>MB</i>		
MFG. APPR.	<i>MB</i>		
APPROVED	<i>MB</i>		
DE APPR.	<i>MB</i>		
DATE	12.07.25		





D4653-045 FITTING ASSEMBLY

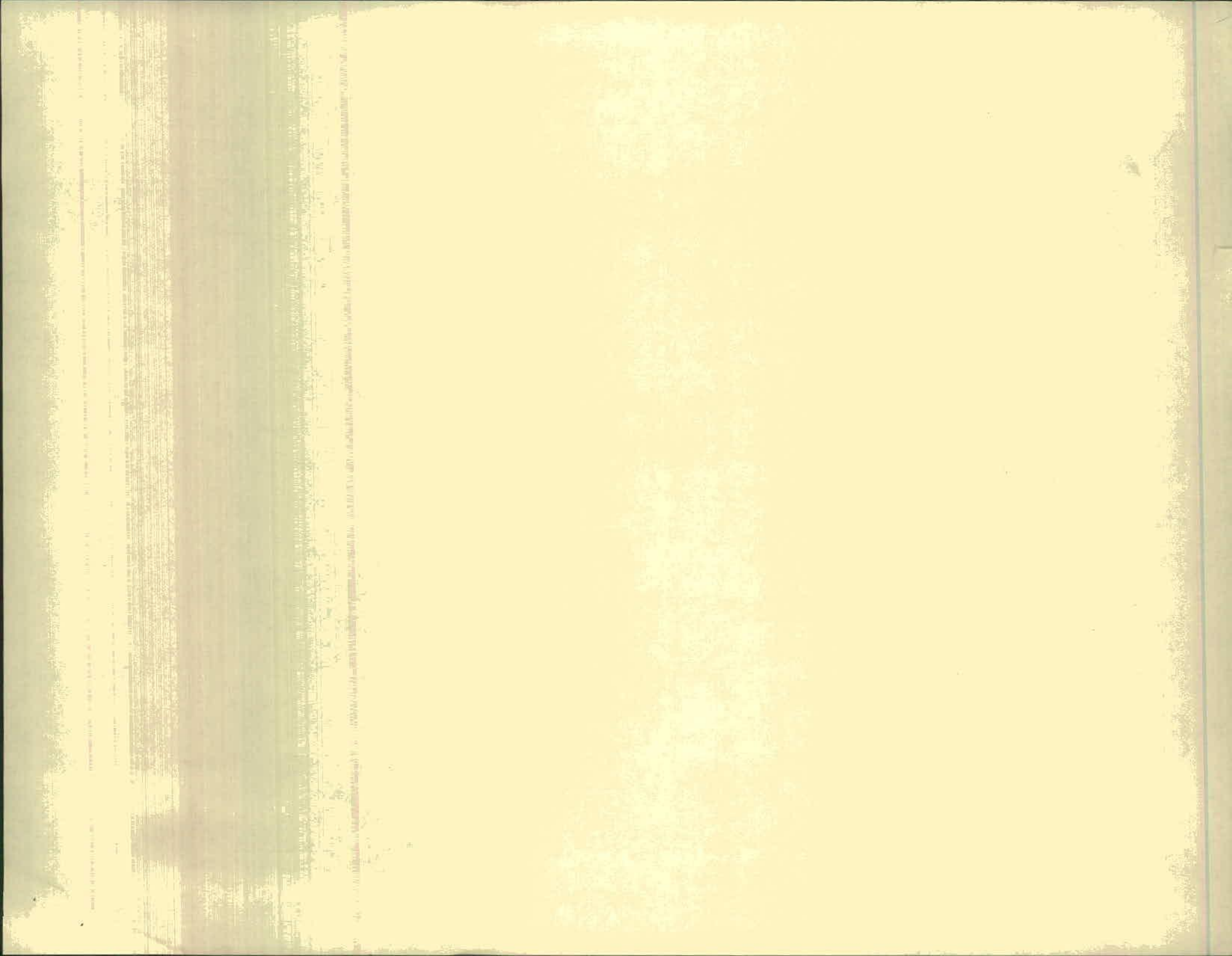
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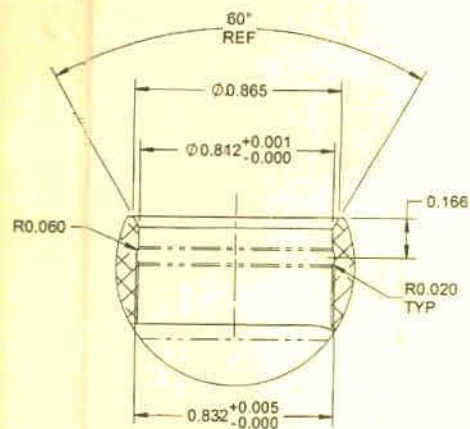
- 1) MATERIAL: S/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.06 lbs
- 8) WELD PER QSI 004
- 9) CHEMICAL CONVERSION COAT PRIOR TO INSTALLING O-RING

ITEM	QTY .045	P/N	DESCRIPTION
	X	D4653-045	FITTING ASSEMBLY
1	1	D4653-7	LARGE FITTING
2	1	D4653-9	SMALL FITTING
3	1	D4654-3	O-RING

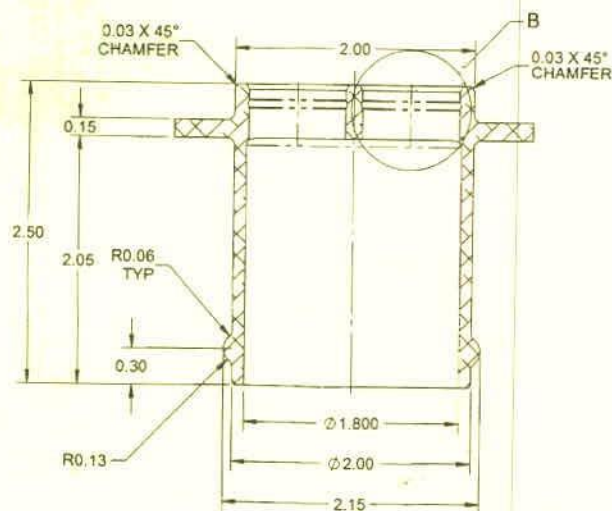
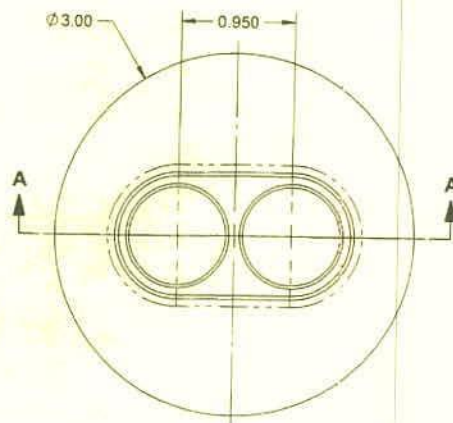
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DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO. D4653	REV. A
MFG. APPR.	<i>[Signature]</i>	SHEET 2 OF 6	
APPROVED	<i>[Signature]</i>	TITLE VENT MANIFOLD ASSY	SCALE
DE APPR.	<i>[Signature]</i>	NTS	
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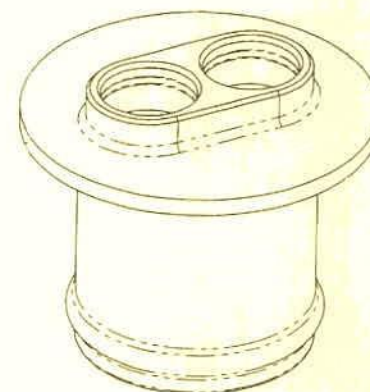




SECTION B-B
SCALE 2X, 2 PL



SECTION A-A



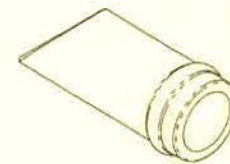
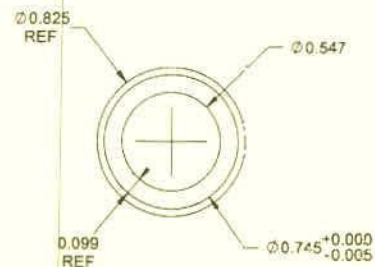
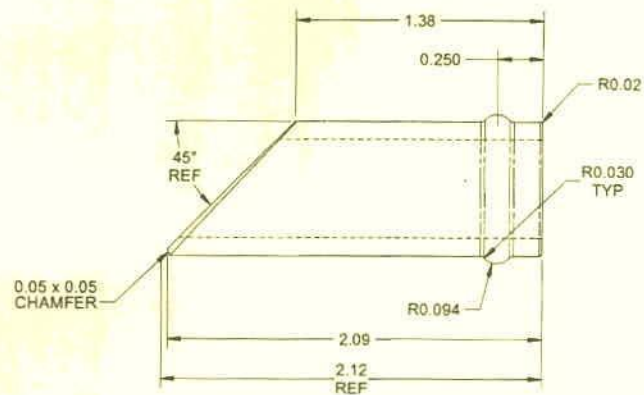
D4653-3 COLLAR

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6R
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.24 lbs

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2012-11-05
WFO

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DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4653	SHEET 3 OF 6
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	VENT MANIFOLD ASSY	NTS
DATE	12.07.25	COPYRIGHT © 2012 BY DART AEROSPACE LTD	
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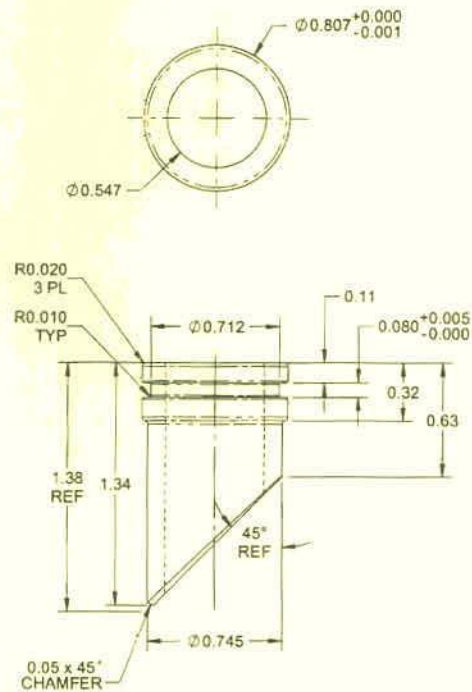
D4653-7 LARGE FITTING

RELEASED
2012-11-05
JMD

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
(OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
(OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.04 lbs

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>	DRAWING NO.	REV. A
CHECKED	<i>[Signature]</i>	D4653	SHEET 4 OF 6
MFG. APPR.	<i>[Signature]</i>	TITLE	SCALE
APPROVED	<i>[Signature]</i>	VENT MANIFOLD ASSY	NTS
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D4653-9 SMALL FITTING

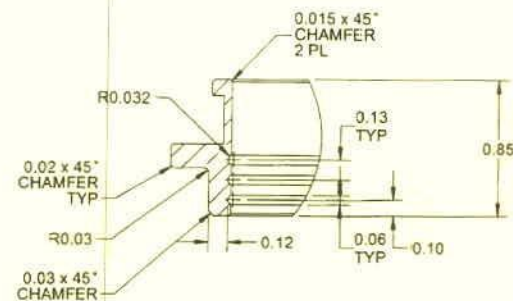
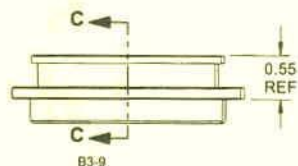
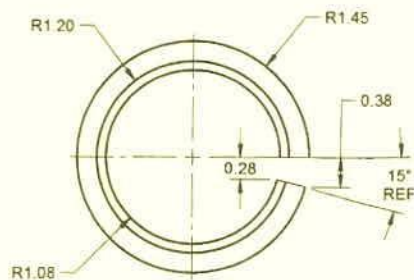


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2012-11-05
JMP

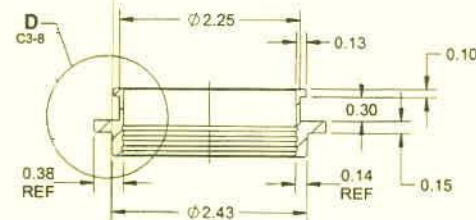
NOTES:

- 1) MATERIAL: 6061-T6/T651/T6511/T62 ALUMINUM ROUND BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>	DRAWING NO.	REV. A
CHECKED	<i>[Signature]</i>	D4653	SHEET 5 OF 8
MFG. APPR.	<i>[Signature]</i>	TITLE	SCALE
APPROVED	<i>[Signature]</i>	VENT MANIFOLD ASSY	NTS
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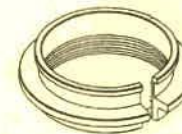


DETAIL D C4-9
SCALE 2X



SECTION C-C C6-9

D4653-11 CLAMP



NOTES:

- 1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL
REF DART SPEC M-DELRIN-B
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: 0.032 lbs

DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. A
CHECKED		D4653	SHEET 6 OF 6
MFG. APPR.		TITLE	SCALE
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RELEASED
2012-11-05

DART AEROSPACE LTD		Work Order: 111990
Description: Collar		Part Number: A4653-3
Inspection Dwg: A4653 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
10° ref	±.5°	60°	/			
Ø.865	±.016	.874	/			
Ø.812	+0.01/-0.005	.813	/			
R.060	±.010	R.08	/			
.166	±.016	.165	/			
.832	+0.05/-0.000	.835	/			
2.50	±.030	2.507	/			
2.05	±.030	2.048	/			
.30	±.030	.30	/			
R.06	±.030	R.03	/			
R.13	±.030	R.14	/			
2.15	±.030	2.148	/			
Ø2.00	±.030	2.00	/			
Ø1.800	±.018	1.803	/			
2.00	±.030	1.995	/			
.03145°	±.030/±.5°	.03145°	/			
.15	±.030	.157	/			
Ø3.00	±.030	.298	/			
.950	±.010	.948	/			

Measured by: JA	Audited by: [Signature]	Preliminary Approval:
Date: 14-3-11	Date: 14-03-28	Date:

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15

